

Alumni athletes on track for Canadian 2014 Olympic team

Peter Boer

A trio of Golden Bears and Pandas alumni racing for bobsleigh gold at the 2014 Winter Olympics in Sochi, Russia, will be joined by an alumnus who is taking the next step in an up-and-coming career as a hockey referee.



Bobsledder David Bissett hopes to push Canada to the podium next month at the 2014 Winter Olympics in Sochi, Russia.

David Bissett, Jennifer Ciochetti and Neville Wright were all nominated in December by Bobsleigh Canada Skeleton (BCS) to represent Canada in Sochi Feb. 7–23. Chris Carlson, an alumnus of the Faculty of Physical Education and Recreation and referee in the Western and American hockey leagues, is headed overseas to officiate men's hockey during the Olympics.

Bissett, a former running back and kick returner for the Golden Bears football team from 2002 to 2005, won bronze in the four-man bobsleigh in Vancouver in 2010, helping push pilot Lyndon Rush to the podium. He also competed in the two-man event in 2010, finishing 15th.

However, Vancouver was supposed to be Bissett's last stop in his bobsledding career, having first competed in the 2006 Olympics in Torino, Italy, then racking up 11 podium finishes between 2007 and 2009, including four first-place finishes on the world stage. But something inside Bissett wasn't quite ready to settle for a bronze medal.

"I was going to move on with life, but there was the bitter taste of not winning, and the team convinced me to come back. They didn't have to try that hard."

Bissett, who holds fourth place on the Bears' list of longest touchdown runs from the line of scrimmage with a 75-yard scamper, also competed with the Golden Bears track and field program.

It was there that he met Quin Sekulich, a former sprint coach for the U of A track program and the former strength and conditioning

Continued on page 2

Leaning into a good cause



The Pandas hockey team donned special teal third jerseys as part of their Lace Up Against Ovarian Cancer game against the University of British Columbia Thunderbirds down at Clare Drake Arena Jan. 18. The Pandas won 3-0.

Two U of A professors emeriti named to Order of Canada

Geoff McMaster

"Astounded, proud, taken aback, elated, privileged, thrilled and—are you sure you have the right person?" were the words U of A professors emeriti Daniel Smith and Baha Abu-Laban used to describe being named to the Order of Canada last month.

Smith was appointed officer of the Order of Canada for "his contributions as an environmental engineer, designing water and energy management systems in northern Canada," according to a citation from the Governor General's office.

A member of the Department of Civil and Environmental Engineering for almost three decades, Smith directed countless engineering research projects devoted to cleaning up effluent from industry—from Edmonton waste-water treatment to oilsands production to forestry. He was one of three principal investigators of the Forest Watershed and Riparian Disturbance (FORWARD) Project studying the impact of forest management practices on water quality.

He has also served as president of Canadian Society for Civil Engineering and chair of the Western Canada Water Environment Association, and is currently president of the International Ozone Association's Pan American group.

Retired from teaching since 2006, Smith supervised more than 200 graduate students in addition to co-founding and leading the U of A's undergraduate program in environmental engineering. But of his many accomplishments, Smith says watching graduate students perform gives him the most pride.

"I've had some wonderful students who have moved on and done great work at many universities across the continent, as well as in industry and government," he says. "That's one of the best products of my career, having instilled principles in these young folks and then watched them go out and implement them."

Abu-Laban, professor emeritus of sociology, was appointed member of the Order of Canada for "his contributions as a scholar and volunteer building a more inclusive society."

Chief among his accomplishments was his role as founding director of the Prairie Metropolis Centre for Research on Immigration, Integration and Diversity, a research network that brought together a multidisciplinary team of about 150 researchers in three Prairie provinces and six universities. These academic researchers, along with government officials and representatives of organizations serving immigrants, organized and sponsored immigration-related research across the Prairie provinces for many years.

Abu-Laban was born in Jaffa, Palestine, and fled the territory as a refugee in 1948, eventually making his way to the U of A in 1961. The sociology professor spent his career exploring issues of race, ethnicity and religion—especially the place of Arabs in North American society, and education and development in the Arab world, while serving as department chair and associate vice-president of research.

"My research interests date back to my graduate education at the University of Washington," he says. "I happened to work as a research assistant for a professor doing a project on blacks in the U.S., and I got interested in issues of race, racism, disadvantage,



Daniel Smith and Baha Abu-Laban were named to the Order of Canada in December.

discrimination, prejudice and the like—so that's a big theme in my work from the 1960s on."

But he says the U of A proved a conducive place to pursue these interests as a professor because "the cultural climate at the university and in the city were really very receptive to people who are diverse."

Abu-Laban retired from teaching at the U of A in 1996 but remained active in research on the integration of immigrants and refugees. He says the union of researchers, service providers and policy-makers produced results that are "decidedly superior to anything undertaken by any one of these groups alone, because they addressed government policy development needs, immigrant-serving organizations' practical needs to more successfully settle immigrants and refugees, and academic researchers' goal to conduct path-breaking research."

Smith and Abu-Laban will be officially recognized for their contributions at Rideau Hall in Ottawa later this year. ■

folio

Volume 51 Issue 8

Office of the Vice-President
(University Relations)
Marketing and Communications
6th Floor, General Services Building
University of Alberta
Edmonton, Alberta T6G 2H1

Editor

Michael Brown
michael.brown@ualberta.ca

Contributors

Bryan Alary, Bev Betkowski, Peter Boer, Michael Brown, Richard Cairney, Caitlin Crawshaw, Alexandria Eldridge, Catherine Ennis, Andrea Lauder, Geoff McMaster, Steven McSweeney, Shirley Mogale, Yolanda Poffenroth, Michel Proulx, Nolan Sawatzky, Richard Siemens, Laurie Wang, Ryan Whitefield

Graphic Design

Marketing and Communications

folio's mandate is to serve as a credible news source for the university community by communicating accurate and timely information about issues, programs, people and events. folio is published 20 times per year.

The editor reserves the right to limit, select, edit and position submitted copy and advertisements. Views expressed in folio do not necessarily reflect university policy. folio contents may be printed with acknowledgement.

Inquiries

Comments and letters should be directed to Michael Brown, editor, 780-492-9407
michael.brown@ualberta.ca

Corporate & Display Advertising

Deadline: Thursday, noon, one week prior to publication
Debbie Keehn, 780-492-2325
folioads@ualberta.ca

Classified Ads

Deadline: Thursday, noon, one week prior to publication
Debbie Keehn, 780-492-2325
folioads@ualberta.ca

Talks and Events

Deadline: Thursday, noon, one week prior to publication

Enter events online at
www.uofaweb.ualberta.ca/events/
submit.cfm

Circulation/Change of Address

Contact Debbie Keehn at
780-492-2325 or via e-mail at
debbie.keehn@ualberta.ca

Billing Info

Contact Fatima Jaffer at
780-492-0448 or via e-mail at
fatima.jaffer@ualberta.ca
ISSN 0015-5764 Copyright 2014



The University of Alberta maintains a database of all alumni. This database is used to send you news about the U of A, including folio and New Trail, invitations to special events and requests for support. On Sept. 1, 1999, post-secondary institutions were required to comply with the Freedom of Information and Protection of Privacy legislation of the province of Alberta. In accordance with this legislation, please respond to one of the following options:

- ☐ Please keep my name, or
- ☐ Remove my name from the folio list.

Name _____
Signature _____
No response means the University of Alberta assumes an individual wishes to remain on the mailing list.

International faces abound in the U of A's future

Geoff McMaster

The University of Alberta has long held that increasing foreign student enrolment is a win-win for everyone. Hailing from 152 countries, foreign students bring a global perspective to the campus culture and serve as informal ambassadors—even future research and business partners—after they graduate.

That's why the university has aggressively recruited students from abroad in the past decade, more than doubling their numbers. In 2006, full-time undergraduate foreign students made up less than five per cent of all students at the U of A; that proportion is now almost 12 per cent (6,333) and growing. And the graduate percentage is the highest in the country at almost 35 per cent, as is the number of students from China.

So when the federal government announced last week a program to double Canadian foreign student enrolment to 450,000 by 2022—backed by \$5 million annually in marketing funding and \$13 million in new scholar-



Britta Baron

ships—it was welcome news to Britta Baron, vice-provost and associate vice-president (international).

"From my point of view, I think it's fantastic—it's great news," says Baron. "But the real value is not in the money. It's the fact that the government is coming out and saying we need to double the number of international students in Canada. 'We get pushback sometimes from people who say, 'Do we really need these international students?'"

Aren't they taking away spaces from Canadian students who really need them?" So with the Harper government saying yes, we need these students—that's hugely important."

Coming from International Trade Minister Ed Fast, last week's announcement signalled the potential dollars at stake in a highly lucrative market. According to the *Advisory Panel on Canada's International Education Strategy*, educating foreign students ranks as Canada's 11th largest export—and its biggest export to China. Foreign students spent \$8.4 billion in Canada in 2012, so doubling that number would be a significant boon to the national economy. In addition, those students who remain in Canada can help fill labour shortages.

But beyond the economy are the more intangible benefits, says Baron. International students "strengthen the position of Canada in the world. We also know a lot of them will want to stay in Canada, enhancing our immigration records with people who are highly educated and motivated."

"Moreover, their presence on campus makes us a much more international environment that everybody is benefiting from. It gives our students a very different perspective on the world and even the global labour market."

As for the oft-expressed criticism that foreign students take away places from Albertans and Canadians, Baron stresses it's simply not true. Foreign students pay for the full cost of their education, so it has no effect on domestic student enrolment.

Perhaps the biggest challenge to international student recruitment is access to visas. In many countries, says Baron, that process is hopelessly mired in staff shortages and inefficiencies.

Former students off to Russia

Continued from page 1

coach for the Golden Bears football team, who introduced him to the sport of bobsleigh. "He's been my coach since I started at the U of A."

Sekulich, who now serves as the strength and conditioning coach for BCS, also had a hand in getting both Wright and Ciochetti interested in the sport.

Ciochetti, who won gold at the 2012 World Championships at Lake Placid, ran sprints with the Pandas track team in 2006, capturing a Canada West and CIS gold medal with the U of A's 4x200-metre relay team.

"The University of Alberta was fun. It's fun to be on a sports team when you are in university," said Ciochetti, who recently made the move from serving as a brakeman in bobsleigh to pilot. "It was the right kind of training that led me to be successful in bobsleigh. It transferred over to a new sport."

Wright is also transitioning to a new position in bobsleigh, having made a switch from brakeman to pushing on the left side in the four-man.

"My whole career has been on the brakes. About a month ago I switched over to the left side, which is a more technical position, so I'm just basically trying to piece everything together."

Wright, a graduate of the Faculty of Physical Education and Recreation, ran for the U of A track team from 2003 to 2007. Once a Canada West record holder in the 60-metre sprint, Wright won gold at the 2005 national championships, took bronze in the 2007 University Games and ran in the 4x100-metre relay in the 2007 IAAF World Championships.

After failing to qualify for the 2008 Summer Olympics in Beijing, Wright took up bobsleigh on Sekulich's suggestion. Wright was a natural, going on to push for Canada at the 2010 Olympics in Vancouver, where his four-man team finished fifth.

"The U of A was where I first started competing at a higher level. It exposed me to elite competition and led to an opportunity to compete for Canada in track," said Wright, who is looking forward to the Sochi Games.

"I think it's an awesome experience, a great opportunity to represent my country, and I'm going to try and do my best." ■



The percentage of full-time undergraduate foreign students sits just shy of 12 per cent, a proportion that has nearly tripled since 2006.

"I think the best use the government could make of this money is to fast-track visas so we don't have that bottleneck anymore."

As good as it sounds, however, doubling international enrolment over the next eight years will be a tough challenge, says Baron. The U of A has made successful inroads in a number of countries in Asia, Europe and South America, and its current priorities include China,

India and Malaysia, but there are limits to what those markets can provide.

"I think we've made huge progress, but people underestimate what it now means. To double the number again is going to be much harder than the doubling we've done in the last 10 years. We're pushing against more and more competition and against a market that is, at best, stabilizing and not necessarily growing." ■

Engineers ask the question: how did the plesiosaur swim?

Richard Cairney

There are plenty of opportunities for undergraduate students to take part in leading-edge research at the University of Alberta. But when Laurel Richards heard about a chance to investigate how a giant ancient sea creature swam, she thought she'd hit the jackpot.

"I heard that Dr. Loewen had an interesting project and that it had to do with dinosaurs, and I was definitely interested," said Richards, a fourth-year civil engineering student.

The project started when Donald Henderson, curator of dinosaurs at the Royal Tyrrell Museum, contacted civil engineering professor Mark Loewen looking for help understanding how the plesiosaur, an ancient lizard that lived more than 66 million years ago, was able to swim stably underwater.

Loewen, whose research focuses on water and ice, was immediately intrigued.

"He sent me this email and I got back to him right away," Loewen said. "I said 'Yeah—let's do this!'"

Henderson's email inquiry turned into a research subject for Richards. Henderson supplied Loewen and Richards with a one-tenth scale model of a plesiosaur to test Henderson's theory that the lizard—plesiosaurs were actually lizards, not dinosaurs—needed a fin on the end of its tail to remain stable underwater.

"The stability of a swimming creature is an extremely complicated problem to solve," said Loewen. "As a first step, we decided to conduct an experiment to determine if the rigid model remained in a stable position, facing upstream, when submerged in a turbulent flow."

The experiments Richards conducted were sophisticated. She mounted the plesiosaur model so it could be submerged in an open channel flume in the Department of Civil and Environmental Engineering's Hydraulics Lab. The flume is essentially an underwater version of a wind tunnel, but exposes models to water flow instead of air flow.

The tests showed that the model plesiosaur was not stable when submerged in a turbulent flow, but in her research presentation, Richards said more investigation is required. A larger model or more sensitive load cell could be used to get accurate measurements of the destabilizing forces acting on the model plesiosaur. These test results could then be compared to measurements made using models that have tail fins, she said.

Richards' research was conducted through the Dean's Research Award program in the Faculty of Engineering. The program gives undergraduate students the opportunity to work on research projects with their professors and graduate students, giving them valuable exposure to research experience and enriching their educational experience. ■



Civil engineering student Laurel Richards and professor Mark Loewen used a scale model of a plesiosaur in a water flume to explore how the ancient sea lizard swam.

The architect who dreamed the U of A campus into reality

Michael Brown

The First World War may have been the seminal event that introduced Canada as a nation, but the architecture above the 49th parallel in the two decades prior shows that construction of a sovereign state was well underway.

Weaved into this period of unbridled spirit was the formative time of the University of Alberta, from a concept in the earliest days of the 20th century to actual bricks and mortar in the decade that followed.

And although the inspiration for a university high atop the bank of the North Saskatchewan River with the promise of “uplifting the whole people” belonged to Premier Alexander Rutherford and the U of A’s first president, Henry Marshall Tory, the physical manifestation of that dream belongs to the first campus architect, Percy Nobbs.

Born Aug. 11, 1875, in Haddington, Scotland, Nobbs spent his childhood in Russia and received his first artistic instruction in St. Petersburg while accompanying his banking family. He would receive his education at Edinburgh and apprenticeship in London before moving to Montreal, where he lived until his death in 1964.

He was considered a bit of a Renaissance man because of his many talents and interests. A conservationist who wrote a book on Atlantic salmon, he also won a silver medal in fencing at the 1908 Olympics, was an artist and even enlisted in the Canadian army at age 39 at the outbreak of the First World War.

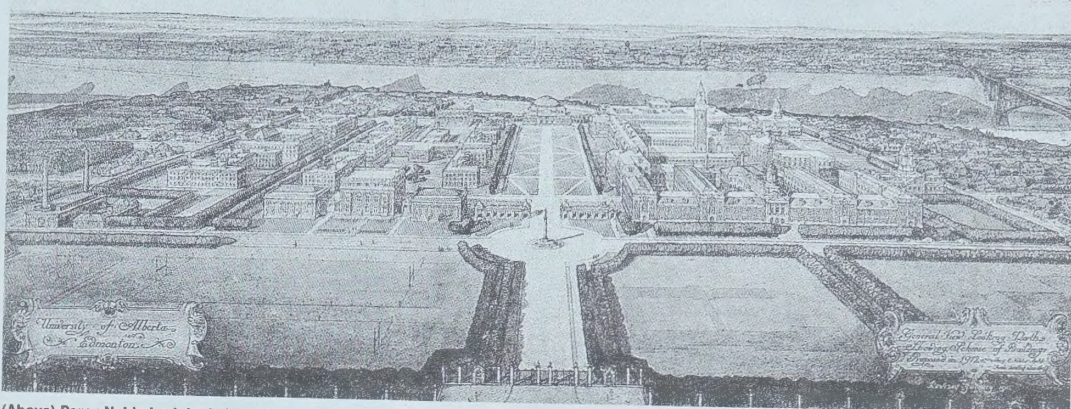
In 1909, Tory invited Nobbs—the two were former colleagues from McGill University dating back to Nobbs’ days as a professor with McGill’s School of Architecture—to prepare a preliminary report for the Edmonton Campus.

In his book *A History of the University of Alberta, 1908–1969*, Walter Johns writes that Nobbs’ original proposal noted “the river front is the position for the big façade of the future. The east side faces a street which might well be widened and that will become important as the driveway on the bluff is developed.” This driveway would later become Saskatchewan Drive.

Nobbs also recommended “that the university buildings be so grouped as to provide a central yard” and added, “buildings crowning the bluff which will be seen from the other side of the river should form as imposing a composition as possible.”

Hardball politics at the provincial level and internal disagreements over building design—at one point the original foundation for the Arts Building was pulled out in favour of one to support a completely different building—would stall the vision for a couple of years until 1912, when Nobbs and Frank Darling, architect for the University of Toronto, presented the Board of Governors with a comprehensive campus plan.

University architect Ben Louie says Nobbs’ campus plan is set in the Beaux-Arts style—a style in architecture and town planning that used formal planning theory of symmetry and sequential spaces together with an ornate decorative aesthetic. Derived from the curriculum of École des Beaux-Arts in Paris in the 19th century, this style heavily influenced



(Above) Percy Nobbs’ original vision for the U of A campus. (Right) Image of the repurposed Dentistry/Pharmacy Building.



Percy Nobbs

town planning and campus architecture in Canada from Confederation to the First World War. Examples of this architectural style in Edmonton are the Alberta Legislative Building (1907-1913) and Le Marchand Mansion on 100 Avenue and 116 Street (1909-1911).

For the university campus, however, Louie says Nobbs also borrowed design elements from the Edwardian architectural tradition that was popular in Great Britain from 1890 to 1914.

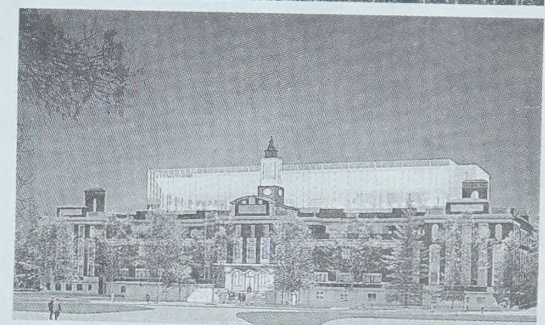
“Edwardian style is characterized by brick construction with stone trims and accents, and window and door openings carefully composed within a totality of a stately building mass,” said Louie. “On campus they are best represented by Athabasca, Assiniboia and Pembina halls.

All told, Nobbs’ vision for the campus led to the construction of Athabasca (1911), Assiniboia (1912) and Pembina (1914) halls, followed by South Lab (1914, now Triffo Hall), North lab (1914, is no more), Arts and Convocation Hall (1915), the Power Plant (1919) and the Dentistry/Pharmacy Building (1921).

“This is quite a legacy in Edmonton for a professor from McGill,” said Louie of his architectural idol. “With such obvious connections in faculty and in architecture, one might be excused when expressing the sentiment that the U of A could be likened to McGill West.”

Unfortunately, the end of the Great War reined in the ambition of large-scale, artfully inspired public architecture in favour of austerity, as evident by the oversized, uncarved keystones and decorative architectural features on the facade of the Dentistry/Pharmacy Building. As this forced reality of budgetary considerations and academic needs took over, along with the design fads of each subsequent generation, Nobbs’ plans for the campus were largely abandoned through the end of the 20th century. More recently, however, a movement to revisit Nobbs’ original vision is afoot on campus.

“Nobbs’ legacy in articulating a master plan to guide campus development as well as eight fine buildings—of which



seven still remain—provided the university with a collegial image, “good bones” and an endearing cultural landscape to this day,” said Louie. “Should you wish to see how Nobbs is still relevant to campus planning today, you would need to look no further than two current project initiatives, namely the Campus Open Space Master Plan to bring cohesion to the campus’s fragmented open spaces, plazas, courtyards, boulevards and walkways into a holistic landscape plan that supports campus life, enhances student experience and celebrates the public realm; and the repurposing of the Dentistry/Pharmacy Building into a welcoming town hall for the university community.”

Louie says Artists, Architects and Artisans—Canadian Art: 1890–1918 at the National Gallery, which runs until Feb. 2, coincides nicely with the university’s lineup of recent and upcoming centenary celebrations, including several of the university’s founding faculties as well as the Alumni Association.

“It is fitting that the talent of Nobbs is celebrated in the context of his contemporaries while his enduring brilliance and his accomplishment are distributed throughout the country, including Edmonton,” said Louie. “It is equally a tribute to the ‘dare to’ spirit and the vision of founding president Tory and the Board of Governors, who commissioned the plan inaugurating the capital building program.” ■

A tough act to follow: Remembering Larry Beauchamp

Caitlin Crawshaw

Before the memorial service for his longtime friend and colleague, Jim Parsons went through his CV and counted 27 different publications that he’d co-written with Larry Beauchamp, who passed away Dec. 22 at the age of 70.

“We wrote books and articles together, reports for the Government of Alberta—everything,” says Parsons. In the four decades that the two education professors worked together at the University of Alberta, they never disagreed on a thing. “I cannot say this about anyone else in my entire life. We never once disagreed. We shared a brain.”

The two met as new hires at the Faculty of Education in 1976. Both newly minted PhDs with families, they had lots in common. But it may have been their shared

sense of fun that solidified the friendship. “We did crazy, humorous stuff,” says Parsons. Case in point: the time they dusted off old reel-to-reel films in the basement of the education gym and decided to rejig them (inspired by Woody Allen’s film *What’s Up, Tiger Lily?*, an adaptation of an old Japanese martial-arts film).

“We learned how to edit, splice and overdub film, and we created a movie titled *The History of Student Teaching, Part Two: A Satirical Spoof*,” says Parsons. It was such a hit with their colleagues that they even showed it at a conference, to much laughter.

Over time, the two friends became the faculty’s unofficial standup comedians, entertaining colleagues at retirement parties. When former dean Wally Worth retired in 1983, the duo interviewed all of the ancient photographs hanging in

his office and determined that his biggest contribution to the faculty “was moving from bar soap to liquid soap.”

“He was a brilliant leader and he made an enormous difference to the Faculty of Education and the University of Alberta.”

Fern Snart

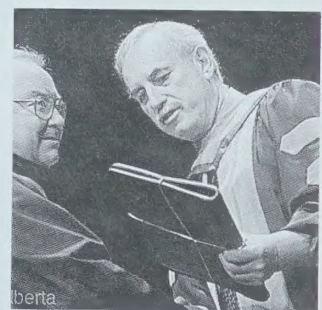
For much of their friendship, Parsons and Beauchamp ran together each morning, rain or shine.

“Larry always called it ‘shuffling.’ When someone would pass us, he would say, ‘Easy for you—you’re tall and fit! But for us this is an accomplishment!’” says Parsons.

Beauchamp was a great storyteller, says Fern Snart, current dean of education. The two began working together in the mid-1990s when he was dean and she was associate dean (academic). “We talked about everything from family to tough meetings, to interactions with government,” she says, “regardless of the subject, Beauchamp was always respectful and kind.”

As the faculty’s dean from 1996 to 2004, Beauchamp earned the loyalty of his colleagues with his integrity and honesty, says Snart: “He was transparent and forthright.” Under Beauchamp’s leadership, the faculty flourished. During his tenure, he secured about \$5 million in base funding from the province for new programs.

Supporting research at the faculty was also important to Beauchamp. “He dramatically advanced our research productivity



Larry Beauchamp served as dean of education from 1996 to 2004.

and reputation, and he hired 70 new faculty members,” explains Snart. During his tenure, Beauchamp worked with other universities and government agencies to secure \$16 million from the Canadian International Development Agency for educational projects in China and South Africa. “He was a brilliant leader and he made an enormous difference to the Faculty of Education and the University of Alberta,” she says. ■

A hub to help young entrepreneurs

Folio Staff

Imagine the outcome of the brightest young minds—students in the arts, business, computing, engineering, medicine and science, along with alumni and more—together in one room sharing entrepreneurial energy.

That's the idea behind a new initiative at the University of Alberta that will offer an entrepreneurship course open to all undergraduate students beginning in fall 2014, and will provide a space in HUB Mall for student entrepreneurs to gather and for their ideas to take flight. Construction of eHUB space is already underway, with an opening event planned for Jan. 28.

"eHUB will accelerate innovation at the University of Alberta and in the province by helping to commercialize entrepreneurial ventures on campus and to connect the university to the industry," said Michael Lounsbury, associate dean of research at the Alberta School of Business and eHUB co-founder.

eHUB co-founder and assistant professor Tony Briggs adds, "Our recent economic impact study showed more than 70,000 ongoing organizations have been founded by U of A alumni. eHUB will bring together leading student entrepreneurs from all faculties with our alumni and partners to catalyze big ideas and build important new organizations."

Championed by the U of A business school's Technology Commercialization Centre, and through a partnership with Startup Edmonton, eHUB will support all entrepreneurship activities on campus. Startup Edmonton will run a five-week intensive course, TEC Edmonton will provide business development training, and the newly created UAlberta Venture Mentoring Service will be a key partner in bringing successful local entrepreneurs to mentor students.

The eHUB project is led by Qasim Rasi, a former post-doctoral fellow from the Faculty of Medicine & Dentistry and a finance MBA graduate from the U of A. "When I started my job, I reached out to different faculties and student groups on campus to build a united front for making entrepreneurship visible on campus," he said. "I was amazed at the eagerness and enthusiasm of everyone to work with us on the project."

One of those early supporters is Eleni Stroulia, NSERC/ICORE industrial research chair and professor of computing science. To engage interdisciplinary partnerships, Stroulia will use successful student plans from courses offered in the Entrepreneurship and Family Enterprise Program as a capstone project for Computing Science 401. "This form of engagement will give our students the necessary tools to learn about leadership, team-building and starting a successful company," she said. ■

Festival of Teaching explores sustainability

the open door

Bill Connor, Sheree Kwong See and Bonnie Sadler Takach
Co-chairs, Festival of Teaching

The seventh annual Festival of Teaching gets underway next week and runs through to May.

The festival celebrates the excellence and enthusiasm of our educators and shares the many innovative practices that are happening across the institution. The Provost's Office launched the Festival of Teaching in 2009 as a one-day event encouraging staff and the professoriate to take time to focus on and celebrate what happens every day across the academy: excellent teaching. That idea has grown into an extended celebration showcasing and celebrating excellence and innovation in teaching.

The festival hosts a variety of events that reflect the depth and diversity of our teaching practices. Each year the Festival of Teaching focuses on a different theme; this year we delve into questions about incorporating sustainability concepts in teaching and learning.

Our first event takes place in conjunction with International Week. On Jan. 29 from 11:30 a.m. to 1 p.m., the festival is presenting a panel discussion, in cooperation with the Office of Sustainability, at the Telus Centre 236/238. In "Encouraging Systems Thinking: The Creative Use of Technology In and Beyond University of Alberta Classrooms," Naomi Krogman, Department of Resource Economics and Environmental Sociology; Maureen Engel, Office of Interdisciplinary Studies; Sean Gouglas, Department of History and Classics; Amanda Montgomery, Department of Elementary Education; and Ali Shiri, School of Library

and Information Studies, will discuss how educators are imagining solutions to the increasingly complex problems of the world and how our professors are using technology to explore concepts of interdisciplinarity, complexity and interdependence with their students.

The following week the Festival of Teaching's keynote speaker, Gary E. Machlis, science adviser to the director of the U.S. National Park Service and professor of environmental sustainability at Clemson University, discusses "The Craft of Teaching Sustainability." In his lively and informative presentation, Machlis reveals how to teach sustainability at the university level. We are lucky to have him here for two days. He speaks at the North Campus Feb. 5 from 11:30 a.m. to 1 p.m. at ECHA 2-190, and at Augustana Campus Feb. 6 from 11:30 a.m. to 1 p.m. at the Augustana Campus Forum, Dr. Roger Epp Conference Room.

To learn more about this year's events, visit the Festival of Teaching website at ctl.ualberta.ca/teaching-events/festival-teaching. All festival events are free, but we ask that you please register.

Teaching is at the heart of everything we do. Our hope is that these events offer different ways for the university community to explore and discuss teaching and pedagogical methods. We believe this year's festival offers something of interest to everyone and we look forward to seeing you at our events. ■

Find offers hope in the prion-disease fight

Bev Betkowski

Research out of the Faculty of Medicine & Dentistry has uncovered a quality control mechanism in brain cells that may help keep deadly neurological diseases in check.

The new findings "present a breakthrough in understanding the secret life of prion molecules in the brain and may offer a new way to treat prion diseases," said project leader David Westaway, neurology professor and director of the Centre for Prions and Protein Folding Diseases.

The latest discovery highlights several years of collaborative prion disease research being conducted on an ongoing basis at the U of A, said Westaway.

"The centre involves collaboration with the U of A faculties of medicine and dentistry; science; and agricultural, life and environmental sciences, and is the epicentre of national prion research activities. We are also linked internationally to scientists in the U.S. Centers for Disease Control and Prevention and to the German neurodegenerative disease research network. Through strong research relationships, the University of Alberta and the centre are leading the way in discovery about prion diseases and how to find cures."

Prion diseases lead to incurable neurodegenerative disorders such as Creutzfeldt-Jakob disease in humans, mad cow disease (bovine spongiform encephalopathy) and chronic wasting disease in deer and elk.

The research, published in *The Journal of Clinical Investigation*, stemmed from two largely unexplained factors for prion infections: their long incubation periods of up to five decades, and a noted time discrepancy between the accumulation of the misfolded rogue prion protein in the brain and when the disease actually shows symptoms.

In probing these mysteries, Westaway, U of A post-doctoral fellow Charles E. Mays, associate professor Jiri Safar of Case Western Reserve University and other international collaborating researchers began two years ago to study a molecule called the "shadow" of the prion protein.

"Dramatic changes in this shadow protein led us to expand our view to include the normal prion protein itself," said Westaway. "This is a crucial molecule in brain cells because it is pirated as the raw material to make rogue prion proteins."

The production of the normal protein had previously received little attention because it was assumed the pipeline to make it was not varying, Westaway noted. There is also an overabundance of the rogue protein that usually complicates detection of the normal



Neurology professor David Westaway (right) and post-doctoral fellow Charles E. Mays

protein. But using a special technique to sort the different types of prion protein molecules, Westaway and his fellow researchers discovered a marked drop in the amount of the normal prion protein. Strikingly, this drop occurred months or years before animal models showed conventional telltale symptoms of brain disease.

"Our belief is that the infected cells are smarter than we once thought," Westaway said. "They not only sense the molecular piracy to make the rogue protein, but they also adopt a simple and at least partly effective protective response—they turn down the pipeline of raw material."

Augmenting this natural protective response may be a preferred route to a cure for prion infections, he noted.

"The pre-clinical phase of the disease—before it shows symptoms—is when you want to set things straight. We may be able to take a slow disease and bring it to a complete standstill."

As well, the discovery could assist in understanding other devastating brain diseases, Westaway said. "Since some scientists believe the normal prion protein is an accessory in the brain cell death of Alzheimer's disease, gaining a new understanding of rare yet lethal prion diseases may provoke fresh insights into human dementias."

The researchers' discovery of a natural protective response can also explain the long latency period of prion disease observed by the scientific community studying these infections, he added.

The study was funded by the Alberta Prion Research Institute, Alberta Innovates – Health Solutions, the Canada Foundation for Innovation, the U.S. National Institutes of Health and Centers for Disease Control and Prevention, the University Health Network and the Charles S. Britton Fund. ■

2014-2015

Killam Annual Professorships

Applications are now being accepted for the 2014-2015 Killam Annual Professorships. These awards recognize outstanding scholarship, teaching and community involvement. All regular, continuing, full-time academic faculty members not on leave during 2014-2015 are eligible to apply. Deans, department chairs and other senior university administrators with personnel responsibilities shall not normally be eligible for Killam Annual Professorships. Associate deans and associate department chairs are eligible providing they have no personnel responsibilities. Up to eight Killam Annual Professors will be selected by a subcommittee of the Killam Trusts Committee; no more than two Professorships shall be awarded to staff members in any one faculty in any given year. Each Killam Annual Professor shall be presented with a \$3,500 prize and a commemorative plaque. The duties of Killam Annual Professors shall not be changed from those that they regularly perform as academic staff members.

The primary selection criteria is a record of outstanding scholarship and teaching over three or more years as evidenced by any or all of research publications, creative activities, presented papers, supervision of graduate students, and courses taught. Secondary criteria is a record of substantial contributions to the community outside the university, above and beyond what is usually expected of a professor, as evidenced by community involvement normally directly linked to the applicant's university responsibilities and activities. However, other forms of community involvement will be considered, especially, but not exclusively, where the applicant's discipline does not readily lend itself to making community contributions, and also where the university's reputation is clearly enhanced by the applicant's contributions.

Awards are tenable for 12 months beginning July 1, 2014. Completed applications must be received by the Office of the Vice-President (Research), 2-51 South Academic Building, by 4:30 pm, February 14, 2014. Award recipients will be announced mid May and will be formally recognized at the Killam Luncheon in the fall of 2014.

Applications and details are available at www.research.ualberta.ca under Vice-President (Research), Internal Honours & Prizes. Questions can be directed to Annette Kujda, Administrative Officer, Office of the Vice-President (Research)—annette.kujda@ualberta.ca or 780.492.8342.



Meeting the challenge of health in the far North

Andrea Lauder

According to Kue Young, the University of Alberta's dean of public health and an expert on northern and Aboriginal health, for any health indicator you choose, circumpolar peoples are typically worse off than others.

Young has good reason to think so—from his research in Aboriginal communities in circumpolar regions, he has found that infectious diseases (such as tuberculosis) and injuries (including suicide) are particularly serious problems that northern communities face today.

"While infectious diseases have been going down in recent years, they haven't gone away completely, and their incidence is still consistently higher than in the south," says Young. And in recent years, circumpolar regions have seen increases in new health problems—such as obesity, diabetes and heart disease—that are related to lifestyle choices. Circumpolar people are those who live in regions surrounding the North Pole, including Alaska, the Yukon, the Northwest Territories, Nunavut, Greenland, northern Scandinavia and the Russian Arctic.

To begin tackling the health challenges facing circumpolar peoples and regions, Young says the social determinants of health need to be examined first.

"There is a lot of work that needs to be done on socio-economic development, such as employment and housing. Population growth in circumpolar regions is outstripping the gains being made, so they are always playing catch-up."

According to Young, there is room for innovation in areas of health-care technology, including transportation, telecommunications and human resources. With the remoteness of the population, per capita health-care expenditures in Canada's North are among the highest in the world.

"Students can learn about public health in a real-world situation. They'd be on the front lines, rather than gleaning knowledge from a textbook."

Kue Young

For Young, an encouraging development is that interest in circumpolar health is growing. For example, the Canadian Institutes of Health Research recently put out a team grant call for research related to wellness, mental health and suicide prevention in circumpolar areas.

"This is the first call of its kind internationally," says Young. "It will be interesting to see what kind of best practices come from the knowledge synthesis and what information can be shared."

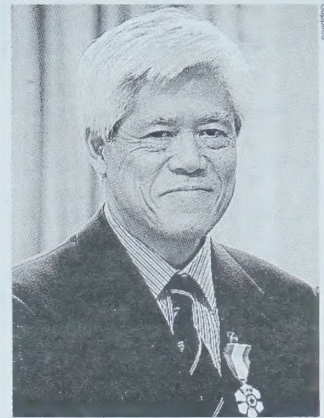
According to Young, the U of A's School of Public Health is poised to provide leadership in circumpolar health. He is currently working with associate professor Arto Ohinmaa on a five-year project to look at primary health care in the Northwest Territories. Other researchers in the school, such as Cindy Jardine and Tania Bubela, are also working extensively with circumpolar peoples. Still, Young says, more attention and work needs to be focused on these northern regions.

"There is plenty of opportunity for research and practice, and also for policy development. I am personally interested in exposing more of our students to northern health and related initiatives," he says. He envisions placing students in the master of public health program into short-term practicum positions in northern regions.

"Public health agencies in the North could benefit from having a student come on board, helping them with projects and data analysis," he says. "Students can learn about public health in a real-world situation. They'd be on the front lines, rather than gleaning knowledge from a textbook."

With a longer-term involvement in northern communities, Young sees opportunities for the school's MSc and PhD students, as well.

"If you are well prepared in the sciences of public health you can go to the northern regions, learn from the people there, make adaptations and apply your knowledge and skills," says Young. "We want to teach our students to do something well, and then they can take those skills anywhere in the world."



Kue Young



UNIVERSITY OF ALBERTA UNIVERSITY GOVERNANCE

General Faculties Council (GFC)

CALL FOR ACADEMIC STAFF NOMINATIONS

ADVISORY SEARCH COMMITTEE FOR THE PRESIDENT

**Nomination Deadline: Friday, January 31, 2014
(at 12:00 Noon)**

In consultation with the Board of Governors of the University of Alberta, Mr. Douglas Goss, QC, A.O.E and Board Chair, has asked that an Advisory Search Committee for the President be established in accordance with the procedures as set out in UAPPOL. Search committee members should expect to meet regularly (once per month) from mid-March through December 2014, with the first committee meeting being held on the afternoon of March 17, 2014. The Advisory Search Committee Meeting Schedule is available on-line at www.governance.ualberta.ca. Nominees must be available on all committee meeting dates, as indicated on the meeting schedule.

The composition of this Advisory Search Committee for the President includes **three faculty members (from Categories A1.1, A1.6, or their counterparts in A1.5 and A1.7) who do not hold administrative positions** as defined in Section 2 of the UAPPOL Presidential Search and Review Procedures (Appendix A): **Committees for President Position Definitions and Eligibility**, elected by the faculty and the appointed academic staff representatives on General Faculties Council (GFC).

GFC Nomination Process for the Advisory Search Committee for the President:

1. A nomination must be supported by the **signatures of five (5) members of Category A1.0** (continuing full-time and/or part-time academic staff), not including the Nominee. A printable copy of the **Advisory Search Committee Nomination Form** is available on-line. Nominees must agree to stand for election to the Advisory Search Committee in the event that an election(s) may be required.
2. The nomination form (including the five signatures of the five Nominators) must be received by Ann Hodgson, Coordinator to the GFC Nominating Committee (University Governance). **Nominations must be received no later than Friday, January 31, 2014 at 12:00 Noon.**
3. An on-line registration must be created in the Nominee's name, and can be submitted by either the Nominee or Nominator. This Nominee record will require nomination specific details and a brief biographical sketch (max. of 150 words).

For all relevant GFC Committee Nomination Details please view the University Governance website at the following link:
www.governance.ualberta.ca

The Search Procedure for the President as well as the position definitions and eligibility details of this 15-member Advisory Search Committee for the President can be accessed on-line under the University of Alberta Policies and Procedures On-Line (UAPPOL) Presidential Search Procedure and the Presidential Search and Review Procedures (Appendix A): **Committees for President Position Definitions and Eligibility** at: <https://policiesonline.ualberta.ca/policiesprocedures/procedures/search-procedure-for-president.pdf>

Please contact Ann Hodgson if you have any questions regarding the nomination process/eligibility at (email: ann.hodgson@ualberta.ca) or telephone: (780-492-1938).

Falling short on maternal health in Pakistan

Andrea Lauder

The clock is ticking on the United Nations' Millennium Development Goals as the 2015 deadline approaches. For University of Alberta researcher Zubia Mumtaz, that raises a lot of questions about her area of research—maternal health—and how it will be addressed.

There are eight Millennium Development Goals, which include reducing poverty and the incidence of HIV/AIDS, and ensuring universal primary education. According to Mumtaz, assistant professor in the U of A's School of Public Health, the focus is beginning to shift to what will become of the goals after 2015.

"Advocating on behalf of poor people is an uphill battle."

Zubia Mumtaz

"What has emerged from the data on these goals is that some countries have been successful at reducing maternal mortality, but the countries with the highest burden have been the least successful," says Mumtaz.

In her latest research, published recently in *The Lancet*, Mumtaz focused on Punjab, Pakistan, and the status of maternal health directly related to the fifth development goal, which calls for improving maternal health and reducing by three-quarters the maternal mortality ratio between 1990 and 2015. Mumtaz notes that maternal mortality rates have improved for the upper and middle classes in Pakistan, but have barely moved in the lowest classes of society.

"If you don't address the poorer populations, the MDGs cannot be met," says Mumtaz. She has found through her research that there is not a lack of knowledge among poor women about services for maternal health. "The extremely poor in Pakistan are being excluded from health services completely or, when they access services, they're treated badly because they're not valued by society as a whole."

When services are offered, too often it's only the rich that end up using them. There are also other social,

political, cultural and economic factors that continue to keep poor women marginalized in society.

"The argument of my paper is that if we want to really start making an impact, we need to start including the poorest people in our data," states Mumtaz, noting that poor people make up 25 per cent of Pakistan's overall population.

"Advocating on behalf of poor people is an uphill battle," says Mumtaz. "Everyone likes hearing about the poor, but when you get into the details about exactly who these people are and what their burdens are, you begin to make people uncomfortable. It is a large elephant in the room that no one wants to talk about."

Mumtaz doesn't mind making people uncomfortable with her research. She especially hopes that she makes policy-makers uncomfortable, so they can address the attitudes and discourse about how the poor are dealt with.

Moving forward, the worry for Mumtaz is that maternal health may fall off the global agenda. Thanks to other researchers addressing the issue of poverty through education and labour markets, there is pressure to keep things like maternal health and poverty on people's radar.

Though the status of maternal health for poor women in Pakistan still lags, Mumtaz is confident that attitudes and treatment of the poor can change. As researchers and policy-makers continue to work together to include poor people in data reporting, they can capture a more accurate picture and propose more specific interventions.

Next, Mumtaz plans to look at interventions that have been successful with poorer populations in smaller settings, and how they can be adopted at broader levels.

"Women have been doing these interventions for themselves, so now I'm interested in how we as researchers and policy-makers can support them."



Zubia Mumtaz

International Week aims to inspire solutions for a healthier world

Bev Betkowski

Open up your world to global awareness as the University of Alberta kicks off International Week 2014 on Jan. 27.

Touching on what matters in the world—from the tragedy of a collapsed clothing factory in Bangladesh to how the power of music promotes public health in Liberia—University of Alberta International’s (UAI) annual week of globally focused awareness offers up a full roster of thought-provoking events to spark discussion, educate and inspire all comers, said Nancy Hannemann, director of Global Education for UAI.

“The University of Alberta connects with the world through teaching, research and community service, and UAI’s International Week celebrates that commitment to creating global citizenship and awareness,” Hannemann said.

I-Week, as it is known around campus, invites everyone from the U of A, Edmonton and Alberta to explore pressing global issues such as poverty, food security, environmental sustainability and human rights, through more than 60 free events on campus from Jan. 27 to Feb. 1.

Now in its 29th year, I-Week is the signature event of UAI’s Global Education program, which

cultivates students as future leaders who can tackle the critical challenges facing the world. Because the U of A is a leader in global teaching and research relationships, with students enrolled from all over the world including China, India and Africa, I-Week has become the university’s largest annual extracurricular education event, and the most extensive of its kind on a Canadian campus, Hannemann noted.

“The University of Alberta connects with the world through teaching, research and community service, and UAI’s International Week celebrates that commitment to creating global citizenship and awareness.”

Nancy Hannemann

Named Outstanding Program in International Education by the Canadian Bureau of International Education, “I-Week is consistently praised by attendees as the best week of the year on campus,” Hannemann said.

This year, I-Week lectures, workshops, exhibits and cultural performances focus on an overarching theme of “Creating Solutions for a Healthier World.”

“The enormity of global issues can be overwhelming to think about, but at the same time, there are people around the world who are working day in and day out to change things and find solutions. UAI wants to get everyone thinking about those solutions,” Hannemann said.

Keynote speakers include Canadian designer and activist Sujeet Sennik, who calls for change in the clothing trade following the collapse of a garment factory that killed more than 1,000 workers in Bangladesh last year. Sustainability leader Alex Steffen speaks about becoming a society of “worldchangers,” and TV host Severn Cullis-Suzuki, daughter of environmentalist David Suzuki, discusses the idea of harnessing human energy for change.

U of A researchers also share insights during I-Week about their globally focused work, among them professors Michael Frishkopf of the Faculty of Arts, who uses music to promote sanitation and public health in Liberia, and



I-Week 2014 is an invitation for the campus community to think about solutions for a healthier world.

David Zakus of the Faculty of Medicine & Dentistry, who promotes maternal and child health in Ethiopia.

And a homegrown cross-disciplinary panel of leading U of A researchers including nanotechnology scientist Jillian Buriak, political scientist David Kahane, sustainability researcher Naomi Krogman and obesity expert Arya Sharma lead the way in sharing ideas and opening discussion on creating a healthier world.

I-Week also exposes the local face of global issues, featuring a panel exploring ways to narrow the gap in health status between Aboriginal and non-Aboriginal people.

“Through International Week, UAI hopes to give people on campus and in the larger community a sense that they can make a difference in some way,” said Hannemann.

To find out everything that’s happening during I-Week, go to globaled.ualberta.ca/iweek.

I-Week highlights

Jan. 27
I-Week Keynote: Alex Steffen presents *Be a WorldChanger*. Come hear this bestselling author and one of the world’s leading voices on sustainability, social innovation and planetary futurism talk about the people who are meeting the planet’s most pressing problems in innovative and creative ways. Under Steffen’s guidance, the solutions-based magazine *Worldchanging.com* became the second-largest sustainability site on the planet. Noon–1:30 p.m. Myer Horowitz Theatre.

I-Week FRANK: Solutions. To create a healthier world, we all have to get involved. University of Alberta academics from different disciplines will share ideas and innovations for a healthier world in four short, punchy presentations. Talks will be given by Jillian Buriak, chemistry researcher and Canada Research Chair in Nanomaterials (Energy for 1 x 9 Billion Earthlings); David Kahane, Department of Political Science (Citizen Participation and Local Food: Building a Healthier Democracy); Naomi Krogman, Department of Resource Economics and Environmental Sociology (Personal Sustainability Plans Linked to the Collective Good); and Arya Sharma, Division of Endocrinology and Chair in Obesity Research and Management, Faculty of Medicine & Dentistry (Why Obesity Is a Disease). 2–4 p.m. Myer Horowitz Theatre.

Jan. 28
I-Week: Sujeet Sennik presents *Fashion. Justice. Design*. In the wake of the tragic collapse of the Rana Plaza factory in Bangladesh, Canadian designer/activist Sujeet Sennik argues we need to change the way we make, buy and perceive clothing. 7:30–9 p.m. 1-430 CCIS.

Jan. 29
I-Week: Severn Cullis-Suzuki. *Energy for Change*. The transformation to a more sustainable life is occurring all over the world. Cities, communities and individuals are beginning to transition away from an outdated, destructive paradigm, one step at a time. Join Severn Cullis-Suzuki to discuss the movements and changes happening right now and discover powerful sources of inspiration for a better way of life. 7:30–9 p.m. 1-430 CCIS.

Jan. 30
I-Week: Millennium Development in Retrospect: Higher Education in Africa’s Development Beyond 2015. N’Dri Assié-Lumumba, professor of African, African Diaspora and Comparative/International Education at Cornell University, will be on hand to discuss how many African countries have let a strategy of post-secondary education go dormant. 7:30–9 p.m. 1-430 CCIS.

Ann Dawrant

www.anndawrant.com

anndawrant@hotmail.com • (780) 438.7000 or (780) 940.6485

RE/MAX Real Estate Centre

- 28 years as successful residential realtor specializing in west and southwest Edmonton
- Consistently in top 5% of Edmonton realtors
- Member of prestigious RE/MAX Platinum club
- Born and raised in Buenos Aires and has lived in Edmonton since 1967
- Bilingual in English and Spanish

“Call me to experience the dedicated, knowledgeable, and caring service that I provide to all my clients.”

UNIVERSITY OF ALBERTA
INTERNATIONAL
Global Education Program

International Week 2014

CREATING SOLUTIONS FOR A HEALTHIER WORLD

JAN FEB 27-01

OVER 60 FREE EVENTS

Keynote:

Alex Steffen
Be a WorldChanger

JAN 27 / 12:00pm - 1:30pm
Myer Horowitz Theatre

www.globaled.ualberta.ca/iweek

Bringing forth justice to victims of violence against women

Yolanda Poffenroth and Shirley Mogale

Born in South Africa during the 1960s, Shirley Mogale faced apartheid and racial segregation as an everyday part of her life. But that never stopped her from dreaming about going to school.

Growing up in Limpopo, the northernmost province in South



Shirley Mogale

she knew she wanted that to change. She received her bachelor's and master's degrees in nursing from the University of Pretoria in South Africa and worked extensively in community nursing.

In 2001, one year before receiving her master's degree, she

co-founded a non-governmental organization in the rural community where she grew up. "I realized the pressing need to focus my work on violence against women," she said.

The encounters Mogale had with the criminal justice system when she accompanied female victims of violence from her NGO to the courts raised many questions that she wanted answered.

"I was puzzled by the way the cases were handled in courts, irrespective of the new and progressive legislation in South Africa," she said. "I came to realize that there was minimal—if any—knowledge about the culture of prosecuting cases with violence against women."

That realization ignited her desire for doctoral studies, and she knew what she wanted to research.

With the support of her husband and children, Mogale moved more than 15,000 kilometres to Edmonton. "I could never have lifted my wings and flown away from Africa if it were not for my husband," she noted with a

smile. "He always says 'I do' to my unusual endeavours."

Alone in a new country with only her daughter (her two sons remained behind in South Africa with their father), Mogale joined the Faculty of Nursing as a doctoral student in 2007. She quickly found friendship and support from her supervisors, Solina Richter and Kaysi Kushner, and from her fellow graduate students and her professors.

Still, the years that followed were difficult for Mogale. "Obtaining a PhD is a lonely, emotional and painstaking journey that puts your resilience to a test of time."

But she persevered and spent six years building on the experiences she had with her NGO to create new knowledge that would refine and improve good practice related to prosecution of violence against women. Mogale's research revealed that the cultural scene in which prosecution of violence against women occurs represents power, while at the same time inducing fear in the victims.

Her dissertation, *An Exploration of the Culture of Prosecution of Violence Against Women in South African Courts*, revealed that the linguistic patterns employed are value-laden, with an arbitrary prosecution approach that de-centres women.

"Wherever these women are, I salute their suffering and unfortunate deaths with pride as they have situated the status of African women on a pedestal of hope."

Shirley Mogale

"Regardless of the definitions of violence against women in documents from the United Nations and legislation in South Africa," said Mogale, "the study found that male and female prosecutors as cultural actors tended to define violence against women according to their gender orientation."

Mogale's research also noted differences in the definition itself, based on the historical and political era in which prosecutors completed their education.

Mogale says her findings are important in nursing. "Nurses contribute to the front-line reporting of violence against women, and

it is necessary to have improved standards for reporting and documentation at this front line of care, especially in this era of technology."

"It will be of particular importance for nurses to revisit the existing health screening, identification, care and reporting protocols in these situations, as appropriate reporting improves the quality of care and establishes connections on health issues that are related to violence."

Mogale believes it's important to think beyond the boundaries of nursing and health care, to consider interdisciplinary programs in which faculties of health studies collaborate with other faculties involved in producing knowledge on victim care and management.

"I wish that I could have embarked on my doctoral study earlier," she said. "If I could have gained a better understanding of what was and is happening in the criminal justice system, perhaps I could have affected the prosecution culture and altered how the victims' cases were handled."

"My dissertation is dedicated to women who are the survivors of violence worldwide and to those who died while their cases were still under the jurisdiction of state institutions."

"Wherever these women are, I salute their suffering and unfortunate deaths with pride as they have situated the status of African women on a pedestal of hope." ■

Student brings healthy solutions with I-Week poster

Nolan Sawatzky

It's no small feat to design an image that will represent a high-profile university event attended by thousands of people, but that's exactly what international student Melody Du did to win the International Week 2014 poster competition.

Du, a fourth-year art and design student from China, produced a sweeping design involving water and a colourful world map that became the visual identity for International Week 2014: Creating Solutions for a Healthier World.



Melody Du won the I-Week 2014 poster competition.

"Clear, clean water is something that felt very healthy to me," says Du, explaining how the I-Week theme inspired her to create a stream of H₂O cascading over a water-coloured world map, washing away negative words such as pollution, war and violence. "I thought that the way to use this water as part of a solution would be if the water could 'wash' away some of the things that make our world unhealthy."

I-Week 2014—running Jan. 27 through Feb. 1—features more than 60 free events that address global challenges such as climate change, conflict, poverty and disease. Through lectures, panel discussions, films, exhibits and dance lessons, audiences will hear about innovative research, projects and communities that are contributing to a hopeful future and a healthier world.

I-Week is hosted by University of Alberta International's Global Education program, but events involve participation from across campus and the greater Edmonton community. All events are open to the public.

Each year, the Global Education team works with students from the Department of Art and Design to develop a visual identity and poster for I-Week. Students are asked to take the theme and turn it into an image people will remember. The winning poster design is then incorporated into a suite of marketing

materials, including a program guide, banners and advertisements.

This year Du's Design 593 class, under the instruction of Kevin Zak, submitted a variety of strong entries for review. Along the way, students helped each other identify which elements were crucial to the design.

"We did a lot of brainstorming to help each other get started on our designs," says Du. "After my design had been selected, Mr. Zak and my class provided me with some great feedback that helped me to refine my poster. Their support was really nice."

Having a creative eye is nothing new to Du. She originally studied Chinese art and ink painting in her hometown of Lanzhou, but she and her father dreamt of her one day going abroad to study.

She came to Edmonton, studied English, built up her design portfolio and generated the grades and portfolio required for admission to the fiercely competitive art and design program.

Du is glad she was able to participate in the I-Week poster competition because it gave her a real-world experience to expand her portfolio.

"Because it is my last year of study, it is very useful to get practical experience working with a client," Du says. "I admit it is also nice to see my work displayed around campus."

Exposure to activities like the poster contest is one of the reasons Du is happy with her decision to attend the U of A. She encourages other international students to take advantage of opportunities to build up their professional experience. "The competition and other events like it are good starting points."

The next step for Du will be finding a job in the design field. She plans on eventually going to graduate school and dreams of opening her own design business focused on photography and working with illustrations.

Nancy Hannemann, director of UAI's Global Education program, says the poster competition is a great way to showcase students' extraordinary talent and provide a hands-on learning experience.

"I-Week is one of the largest events hosted at the U of A, and one of our priorities is finding a poster design that really captures the spirit of the week," said Hannemann. "Melody's design struck us as being very visually appealing and it strongly captured our theme. We are really happy with the design and we're excited to feature her talent."

Banners, ads and posters based on Du's design will be featured around campus and Edmonton until the end of I-Week. The full roster of poster concepts created by the Design 593 students will also be on display in HUB Mall (in the Academy Pizza display case) until the end of I-Week. ■

2014 festival of teaching

Teaching Sustains

Keynote Speaker | Gary E. Machlis
Science Advisor to the Director, U.S. National Park Service, and Professor of Environmental Sustainability at Clemson University

The Craft of Teaching Sustainability
February 5, 2014 | 11:30 a.m. – 1 p.m.
Edmonton Clinic Health Academy (ECHA) 2-190

The Craft of Teaching Local Sustainability
February 6, 2014 | 11:30 a.m. – 1 p.m.
Augustana Campus Forum
Dr. Roger Epp Conference Room

In partnership with the
Centre for Teaching & Learning
and the Office of Sustainability

ALBERTA

Everyone is welcome.
FoT events are free but we ask that you please register at fof.ualberta.ca

Helping hawks weather the storm

Catherine Ennis

A team of researchers at a University of Alberta institute is helping endangered prairie hawks weather the storm of climate change.

Alberta's changing climate poses challenges for humans, but for a species like the ferruginous hawk, which already faces a variety of threats, climate change could have disastrous consequences for its survival in the province.

To help improve the odds for these iconic birds, U of A researchers collaborating with the Alberta Biodiversity Monitoring Institute (ABMI) on the Biodiversity Management and Climate Change Adaptation project are tackling two challenges—understanding how climate change is affecting hawk populations, and finding ways to reduce the impact.

Ferruginous hawks, named for their reddish-brown colour, are

North America's largest hawk species. These raptors, which nest across the grassland region, are listed as endangered in Alberta and threatened throughout Canada—largely, it is thought, because of habitat loss and land-use changes throughout the Prairies. In 1987, the number of nesting pairs in the province was listed at 1,791. By 2010, that number had dropped by nearly two-thirds, to just 643 pairs.

Now add climate change to the mix. Climate projections for the Great Plains suggest our future will be hotter and drier, with more intense and frequent rain and wind.

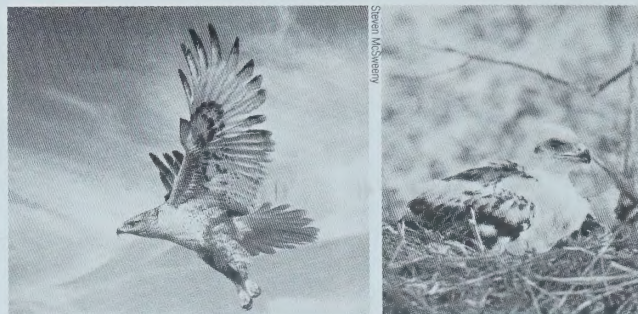
"Ferruginous hawks—in fact, most birds that breed in the prairie—are at the mercy of the elements simply because there aren't a lot of places they can take cover during harsh weather events," says Ryan Fisher, former post-doctoral fellow with the U of A's Raptor Ecology and Conservation team (REACT) and project co-lead.

Prolonged periods of heavy rain limit opportunities for the adult birds to hunt food for their young. When adults do hunt in the rain, the chicks are left vulnerable to cold and wet conditions. Strong windstorms can damage hawk nests and the nesting trees, and can sometimes even blow the nests to the ground.

To measure the impact of more frequent extreme weather on hawk reproduction and survival, Fisher and other members of REACT monitor up to 300 ferruginous hawk nests each year.

"To monitor nests we basically check on them once a week. We use a painter's pole with a camera secured on top to count chicks and eggs," explains Janet Ng, a PhD candidate. "We ultimately want to see how many young fledge out of that nest at the end of the season."

The team also monitors adult hawks using satellite transmitters. "We track the movements of male ferruginous hawks because they



Researchers with the Alberta Biodiversity Monitoring Institute are keeping a sharp eye on how climate change is affecting endangered hawks.

defend the territory," says Jesse Watson, a science master's student. "Knowing the hawk's territory helps us understand where the hawks will hunt and how far they will travel."

The team also collects information on weather to see how their data on hawk reproductive success, survival and territory size correlate with the frequency and intensity of storms.

Their research so far is showing that ferruginous hawks are very vulnerable to heavy rain and high winds. But the good news is that artificial nest platforms used to encourage

hawks to build nests seem to act as a buffer against high winds.

"We're trying to identify which types of artificial platforms might be best to prevent wind damage to nests," says Fisher. "If we know which designs are best from a weather perspective, those are the ones we can recommend."

The Alberta Biodiversity Monitoring Institute project involves collaborators from the U of A and the Miistakis Institute and receives its core funding from the Climate Change and Emissions Management Corporation. ■

Sneezing sponges suggest existence of sensory organ

Bryan Alary

When Danielle Ludeman decided to leave her hometown of Vancouver to study evolutionary biology at the University of Alberta, she knew she was in for a challenge that would help her discover things about science and, in turn, herself.

What she didn't count on were the hours, days and months she'd spend watching sponges in mid-sneeze.

It sounds like a strange way to pass time, but sneezing sponges have become a major part of Ludeman's studies at the U of A, including a new paper that points to the sneeze as evidence of a sensory organ in one of the most basic multicellular organisms on Earth.

"The sneeze can tell us a lot about how the sponge works and how it's responding to the environment," said Ludeman, a master's student in the Faculty of Science. "This paper really gets at the question of how sensory systems evolved. The sponge doesn't have a nervous system, so how can it respond to the environment with a sneeze the way another animal that does have a nervous system can?"

Ludeman started the work as part of an undergraduate research honours project, working under the supervision of Sally Leys, Canada Research Chair in Evolutionary Developmental Biology. It was Leys and a former graduate student who first discovered that sponges do in fact sneeze.

The sponge is a filter feeder that relies totally on water flow through its body for food, oxygen and waste removal. Sneezing, a 30- to 45-minute process that sees the entire body of the sponge expand and contract, allows it to respond to physical stimuli such as sediment in the water.

For their study, Ludeman and Leys used a variety of drugs to elicit sneezes in freshwater sponges and observed the process using fluorescent dye—all recorded using time-lapse video. Their efforts focused on the sponge's osculum, which controls water exiting the organism, including water expelled during a sneeze.

Through a series of lab experiments, the pair discovered that ciliated cells lining the osculum play a role in triggering sneezes. In other animals, cilia function like antennae, helping cells respond to stimuli in a co-ordinated manner. In the sponge, their localized presence in the osculum and their sensory function suggest the osculum is in fact a sensory organ.

"For a sponge to have a sensory organ is totally new. This does not appear in a textbook; this doesn't appear in someone's concept of what sponges are permitted to have," said Leys.

Leys said the discovery raises new questions about how sensory systems may have evolved in the sponge and other animals, including ones with nervous systems. It's possible this sensory system is unique to the sponge, she said, evolving over the last 600 million years. Or it may be evidence of a common mechanism shared among all animals, and retained over evolutionary history, as demonstration of its essential function.

For Ludeman, the paper represents the latest chapter in her studies at the U of A, which also included a year-long exchange in Australia and several months at the Bamfield Marine Sciences Centre on Vancouver Island. Having the flexibility to study abroad was part of the appeal of the U of A, she said.

"Those two experiences were huge during my undergrad. The Faculty of Science at the U of A gave me those opportunities."

Despite all the hours filming and observing sneezes, Ludeman says she's still not sick of sponges.

"We know so little about how a sponge works, and there are so many cool questions you can ask."

Ludeman and Leys' findings were published Jan. 13 in BMC Evolutionary Biology. ■



Sponges have the ability to remove sediment clogging their filtration system by, in effect, sneezing.

Are You a Winner?

Congratulations to Bob Barton, who won a timeless Butterdome butter dish as part of Folio's Jan. 10 "Are You a Winner?" contest. Barton recognized the setting of the picture as the hockey rink behind Lister Hall. Up for grabs this week is Omar Khadr: Oh Canada by U of A professor Janice Williamson. To win it, simply identify where the picture was taken and email your answer to folio@ualberta.ca by noon on Monday, Feb. 3, and you will be entered into the draw.



Nutrition researchers create eating plan for the Prairies

Michel Proulx

Two nutrition researchers at the University of Alberta are making it easy for people living in the Prairies to eat a heart-healthy diet using foods that are local and affordable.

Rhonda Bell and Cathy Chan, nutrition professors in the Faculty of Agricultural, Life and Environmental Sciences, wrote a book entitled *Pure Prairie Eating Plan: Fresh Food, Practical Menus and a Healthy Lifestyle*. It contains a detailed 28-day menu complete with numerous recipes for three meals and three snacks every day.

Call it the Mediterranean Diet for the Prairies.

"Just like the Mediterranean Diet, the *Pure Prairie Eating Plan* promotes a pattern of healthy eating above all else, and emphasizes fruits, vegetables and grains," said Chan.



Rhonda Bell and Cathy Chan created the *Pure Prairie Eating Plan* for people in the Prairies.

The book also includes weekly ingredient lists for easier shopping, along with tips for healthy eating, carbohydrate counting and other useful information about the plan.

"We wrote this book for people who want to eat healthier foods but don't necessarily know how to go about it. Everything we need to eat more healthy is available at our local grocery stores," said Bell.

Chan noted that the *Pure Prairie Eating Plan* follows Canada's Food Guide recommendations and uses local ingredients and culturally appropriate food choices.

"For example, the Mediterranean Diet uses olive oil extensively. Olive oil is quite expensive on the Prairies, but it turns out we have canola oil. It's plentiful, fairly inexpensive and just as healthy," she explained.

Another significant difference between the eating plans is the use of red meat. The Mediterranean Diet suggests eating red meat only about once a month, but that's not realistic for the Prairies, where people love their red meat, particularly beef. The researchers incorporated red meat into the eating plan sensibly with leaner cuts, including pork, and appropriate portions and ways to prepare them. The eating plan also contains other protein sources such as pulses and grains.

Though the plan's main purpose is to make it easier for people to eat a healthier diet without depriving themselves of the foods they know and love, the authors say it can also be used to lose weight.

"Each day's menu is about 2,000 calories," said Chan. "And for each day, we show how you can decrease the amount of calories, or increase them, by about 200 calories."

Bell and Chan first developed the plan for people living with Type 2 diabetes, as part of the Physical Activity and Nutrition for Diabetes in Alberta (PANDA) project. Research indicated that people with Type 2 diabetes who followed the plan improved their blood sugar levels and lost weight. Stakeholders were impressed with the results and wondered whether the plan could be adapted to promote healthy eating for everyone. Bell and Chan took on the challenge and, through additional research, developed the *Pure Prairie Eating Plan*.

To find out more or buy the book, go to www.pureprairie.ca. ■

Strategic sacrifice key to finishing award-winning video game

Geoff McMaster

In most action video games, the goal is to stay alive. But in *Life Goes On* there's a twist—your avatar actually gets ahead by dying. Where and how it expires becomes a question of strategy.

And although this new game—developed by a graduate student in the U of A's humanities computing program, a computing science grad student and two alumni from computing science and engineering—doesn't launch until next spring, it has already proven hugely popular in its demo incarnation. It won an Intel Level Up Award last year for best character design, and generates some 50,000 hits on its parent company's website every month. It was one of the top games at the 2013 PAX Prime exhibition in Seattle, and since last October the demo has racked up almost 16,000 downloads.

Life Goes On, which features knights on a quest for the Holy Grail, was born at the Global Game Jam at the U of A in 2012, part of an event where teams of game developers from around the world gather to produce a viable demo in 48 hours. That year's theme for the contest was the Ouroboros—an ancient symbol of everlasting life embodied in the snake that devours its own tail.



"Life Goes On" co-developer David Holmes

"The idea we were going for was to make death matter in video games," says team member David Holmes, "because until now death has been very static. We wanted to make a game where death was not only fun, but required in order to beat the game."

Every time the knight character dies in pursuit of a Holy Grail, a new knight is "respawned." On the first level, for example, he might be skewered in a pit full of spikes, but another knight is immediately reborn and able to walk over his fallen brethren to traverse the pit. As the game advances through 50 levels, there is a plethora of ways to use death to the player's advantage.

"You have to stand on the shoulders of your former comrades," says Holmes, adding that the aim is to solve the puzzle at each level

as quickly as possible and with the fewest number of deaths.

Holmes has been in love with games since he was a child, he says, but it was the humanities computing program at the U of A—and the fact that Edmonton is home to BioWare, one of the world's most successful gaming companies—that prompted him to consider gaming as a career.

"When I finished my bachelors and mathematics, the humanities computing program really stuck out for me; it was a pioneering program in terms of combining digital humanities and practical experience. The best way to get into the industry is to make games, which is what I get to do."

"The best way to get into the industry is to make games, which is what I get to do."

David Holmes

When he started the program, Holmes thought he'd have to work for five or six years in the industry before striking out on his own as an independent game developer. But with the success of *Life Goes On*, Holmes and his

teammates—U of A alumni Erik Johnson, Susan Wright and Ian Morrison—have started a company called Infinite Monkeys Entertainment with the help of the UAlberta Venture Mentoring Service, a free program run by the Alumni Association that lends assistance to anyone in the university community looking to start a business.

The game's early success has also landed it on Steam, which is supported by more than 100 million users and considered the marquee platform for video game distribution. The company's goal is to sell at least 5,000 units on the first day of sales, which would recoup their initial "bootstrapped" development investment of \$30,000. But if early interest is any indication, downloads could easily surpass that, setting the team on its way to an exciting career after graduation.

"Game development is one of those things where you can wake up in the morning and think you're going to have a great day," says Holmes. "But then there's a huge crisis by lunchtime—you don't even know if you're going to ship any more—and by the end of the day you've solved that problem and everything's looking good again. Then it all happens again the very next day."

To download the demo and get updates on *Life Goes On*, visit www.lifegoesongame.com. ■

Helping families cope with autism and aggression

Laurie Wang

Madeline Rainey admits she compares her son's existence to a life sentence.

"I watched him suffer and be blamed and judged," says Rainey, whose son, Eric*, has autism spectrum disorder with aggression. "I keep asking, 'When is someone going to do something and recognize the lifelong pain that my kid and I have to live with?'"

Though autism and aggression are not synonymous, many children with autism spectrum disorder (ASD) show aggressive behaviour, which has a significant and lifelong impact on families, according to a University of Alberta study.

"Little has been done to understand families coping with autism and aggression, and if these families don't receive the support they need, things can get bad very quickly," says

Sandy Hodgetts, assistant professor of occupational therapy in the Faculty of Rehabilitation Medicine and lead author of the study.

"The percentage of children with ASD and aggression is not known because aggression is not a core symptom of autism."

Though the study was small, it was the first to look at families dealing with autism and aggression. The researchers followed 15 families with male children and young adults with varying levels of autism. Nine of the 15 families brought up their child's aggression as a barrier to services. Parents described the impact of the aggression as "constant," "never-ending" and "almost unbearable." One mother said her son's aggression had become so bad that she was "about ready to be locked up."

Hodgetts says families dealing with aggressive behaviour struggled with social isolation,

lack of respite care and limited professional supports.

"The aggressive acts are not malicious. There needs to be better understanding and mechanisms in place to train and support respite care providers and health-care professionals in this area."

Rainey agrees that specialized training could make all the difference. When Eric was in grades 11 and 12, he had a teacher who majored in special education. She was able to be creative, understand Eric and not be deterred by his aggression.

"I'm grateful for her and we still keep in touch," says Rainey.

Though her son is now 21, Rainey hopes this study can spur more research on autism and aggression. "It raises awareness on the impact on families and can hopefully help remove the social stigma for children and parents."



Madeline Rainey holds a portrait of herself with her son when he was a child.

She hopes that with positive change and awareness, perhaps one day other families don't have to go through what she went through.

"We went from daycare to daycare, from caregiver to caregiver. I was told the reason my son was aggressive was that I was too domineering as a mother. And I was told I was too permissive. I was told to feed my child

only organic food so he wouldn't have these behavioural problems. They assumed he was some kind of monster and I was to blame," she says. "It takes a piece of your soul."

The study was published in the journal *Focus on Autism and Other Developmental Disabilities*.

* Editor's note: Son's name has been changed. ■

Students shine research spotlight on eating disorders and mental health

Bryan Alary

Vanessa Peynenburg can't pinpoint how or when she developed anorexia as a 15-year-old, but she knows bullying was a factor. Every day her tormentors at school urged her to do the world a favour and kill herself.

As Peynenburg's sense of self-worth plummeted, her eating habits changed. She didn't skip meals but greatly restricted her calories and ate alone, distancing herself from family and friends.

"I think of my eating disorder as the bullies manifesting themselves in my head, almost," she said.

Jessica Luc's experience with bullying started even earlier, in elementary school. She switched schools three times, trying to escape and find a place where she felt like she belonged. Instead of finding acceptance, she retreated inward and shrank from view.

"It really affected the way I saw myself—I stood differently and held myself differently than I do now," she said.

Both women, now 19, overcame their bullies and are standing tall as students at the University of Alberta. The pair co-founded and are presidents of the Be Your Own Kind of Beautiful Student Association, which is dedicated to raising awareness about eating disorders, bullying and mental illness.



Jessica Luc (left) and Vanessa Peynenburg are co-presidents of the Be Your Own Kind of Beautiful Student Association.

Since its founding two years ago, BYOKOB has gained 85 members whose aim is to help other students and members of the community find beauty within. They've organized an annual all-sizes fashion show, held photo shoots that challenge popular notions of beauty and are working on a documentary film dedicated to the memory of those grappling with eating disorders and mental illness and those who've lost the battle.

On Jan. 16, the organization held its first ever Mental Health Research Symposium as a way to showcase all the

work being done at the U of A on the issues of eating disorders, bullying and mental illness. The symposium's keynote speakers included registered psychologist Kristine Aanderson and psychiatrist Lara Ostolosky, both of whom work with people who have eating disorders. The event also featured oral and poster presentations from undergrad and graduate students.

"People are usually not reluctant to speak about cancer or a fractured limb, yet they whisper about mental health issues and avoid asking questions about it," said Luc. "The brain is a body part too, we just know less about it. There should be no difficulty in discussing or seeking help for an illness that is affecting so many individuals in the community. We've got to get rid of that stigma, and this is what the symposium is about."

All presentations were open to the public. Even people currently receiving treatment for eating disorders were invited, making it a true community event.

"Even when you're going through it you still have a hard time understanding what's going on and why it's happening to you," said Peynenburg, whose own struggles with anorexia happened gradually, and with plenty of denial. "We just want to educate as many people as possible about the symptoms and what can be done to treat it." ■

FOCUSING ON A HEALTHIER WORLD

Organized by UAI's Global Education Program, the I-Week 2014 Photography Contest had photographers everywhere trying to answer the question, "What does a healthier world look like to you?" Twenty winning photos (including the top three, shown here), were chosen based on their artistic merit and how well they fit with the theme. All of the winning photos are on display at Enterprise Square from Jan. 23 to Feb. 7.



Brian Nadler



Fahim Hassan



Kirk Starkie



Karen McCrae



Jen Duffy



Atiqul Islam



Krupa Sindhu Guru

the BackPage